

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/18/2009 has been entered.

### ***Amendment***

Response to amendment filed 08/18/2009. Claims 1-3, 8-11, and 15-17 are amended. Claims 1-17 are pending.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new grounds of rejection.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 8-12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prokopenko et al, US Patent # 7188355, hereinafter

Prokopenko, in view of Zomaya et al, US Patent # 6711676, hereinafter Zomaya in view of Candelore, US Patent # 6057872, hereinafter Candelore.

With regard to claim 1, Prokopenko discloses:

An information management system comprising:

a center processing apparatus for performing user-information analysis (column 6, lines 15-22; Prokopenko discloses an "avatar agent" that collects user information and analyzes it); and a plurality of information processing apparatuses for storing user information (column 9, lines 45-47) wherein:

said center processing apparatus comprises:

acquiring means for acquiring user information collected from each of the information processing apparatuses (column 9, lines 54-59);

analyzing means for analyzing the user information acquired by said acquiring means (column 9, lines 59-62);

user-information recording means for recording, in a database, the information obtained by the analysis by said analyzing means (column 10, lines 46-56 (Prokopenko describes storing the updated user profile obtained from the analysis));

selecting means for selecting, based on the user information obtained by the analysis by said analyzing means, optimal procedures for users of the

information processing apparatuses (column 9, lines 66-67; Prokopenko describes the set of recommendations being sent to the Avatar manager) ;

providing means for providing the users with the optimal procedures selected by said selecting means (column 10, lines 1-3)

each of said information processing apparatuses comprises:

operation-information accepting means for accepting operation information from the user (Figure 1A, item 35 and column 6, lines 13-15);

signal processing means for processing an input signal, based on the operation information accepted by said operation-information accepting means (The system of Prokopenko inherently process the input signal containing operation information when it is received); and

storage means for storing, as the user information, the operation information concerning the input signal (column 9, lines 45-47)

Prokopenko fails to disclose that the selecting means selects optimal procedures about image and sound quality based on user preference information, or providing users with a product or a circuit board having a function of the optimal procedures about image quality and sound quality selected by said selecting means to update an existing product or circuit board having a corresponding function. The system of Zomaya does provide users with a product having a function of sound or image quality (fig. 1, and column 4, lines

19-54; Zomaya discloses the hardware configuration of the computer (including the sound card and the video card; furthermore in the background column 1, lines 32-41 Zomaya discloses upgrade recommendations of "video capabilities...etc") and that the invention determines the hardware configuration of the computer to make a proper hardware upgrade recommendation. In column 9, lines 30-46, Zomaya discloses that the target configuration of the computer which will be used to recommend upgrades to the current configuration, can be established using "user preferences". Therefore, the system of Zomaya does suggest (and provide if the user selects the product; column 8, line 63 – column 9, line 7) a product to the user to increase image and sound quality (corresponding to an upgraded video or sound card). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Zomaya to further use the information management system of Prokopenko to recommend/provide hardware audio/video upgrades to the system to provide a better user experience.

Prokopenko in view of Zomaya discloses collecting user information including user preference information as described above in order to recommend upgrades to a user, however fails to specifically disclose that the user preference information includes operation information from a user, and that the user operation information reflects new functions and new products. In a related art, Candelore describes a system in which a system monitors user activity and offers additional programming based on said activity (column 3, lines 40-52).

Specifically, in column 6, lines 27-41, Candelore discloses monitoring various factors of a usage pattern, such as the number of PPV programs purchased, and a duration that a terminal has been tuned to a particular program service (corresponding to operational information of the STB). In column 6, line 62 - column 7, lines 5, Candelore describes that a service can be monitored, and the user can be given the option to upgrade to a premium program service (corresponding to a new product or function). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Candelore to monitor operational information of an STB in order to gauge user interest in a particular product or function to the system of Prokopenko in view of Zomaya, which discloses upgrading user equipment based on user preferences. The combination of these two known art elements would have led one of ordinary skill to realize that the system could be further customized based on operational information (as taught by Candelore) as well as preference data.

Claim 2 is the method corresponding to the system of claim 1, and is analyzed and rejected accordingly.

Claim 3, is the center processing apparatus as disclosed in claim 1, and is analyzed and rejected accordingly.

Claim 8 is the method of acquiring, analyzing, and selecting optimal procedures for a user as disclosed in claim 1, and is rejected as applied to claim 1.

Claim 9 is the computer instructions on a computer readable medium to drive the system of claim 1, and is analyzed and rejected accordingly.

Claim 10 is the computer instructions on a computer readable medium to drive the system of claim 3, and is analyzed and rejected accordingly.

With regard to claim 11, Prokopenko discloses:

An information processing apparatus comprising:

information accepting means for accepting information from a user (column 7, lines 35-37; Prokopenko describes sending user information from a user to the avatar agent for processing); signal-processing means for processing an input signal in accordance with a predetermined procedure, based on the operation information accepted by said operation-information accepting means (column 7, lines 41-48; the avatar agent collects the data input by the user (via a remote control) based on the type of information); and storage means for storing, as user information to be provided to a provider of said information processing apparatus, the operation information and information concerning the input signal (column 9, lines 44-47), wherein the procedure is determined based on past user information for the user (column 7, lines 18-25; Prokopenko describes information from a past user being input by selecting an animation character on a screen. If the user is identified, past information would be used as part of the recommendation procedure)

Prokopenko fails to disclose that the selecting means selects optimal procedures about image and sound quality based on user preference

information, or signal-processing means for processing an input signal in accordance with a product or a circuit board having a function of the optimal procedures about image quality and sound quality selected by said selecting means to update an existing product or circuit board having a corresponding function. The system of Zomaya does provide users with a product having a function of sound or image quality (fig. 1, and column 4, lines 19-54; Zomaya discloses the hardware configuration of the computer (including the sound card and the video card; furthermore in the background column 1, lines 32-41 Zomaya discloses upgrade recommendations of "video capabilities...etc") and that the invention determines the hardware configuration of the computer to make a proper hardware upgrade recommendation. In column 9, lines 30-46, Zomaya discloses that the target configuration of the computer which will be used to recommend upgrades to the current configuration, can be established using "user preferences". Therefore, the system of Zomaya does suggest (and provide if the user selects the product; column 8, line 63 – column 9, line 7) a product to the user to increase image and sound quality (corresponding to an upgraded video or sound card). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Zomaya to further use the information management system of Prokopenko to recommend/provide hardware audio/video upgrades to the system to provide a better user experience.

Prokopenko in view of Zomaya discloses collecting user information including user preference information as described above in order to recommend upgrades to a user, however fails to specifically disclose that the user preference information includes operation information from a user, and that the user operation information reflects new functions and new products. In a related art, Candalore describes a system in which a system monitors user activity and offers additional programming based on said activity (column 3, lines 40-52). Specifically, in column 6, lines 27-41, Candalore discloses monitoring various factors of a usage pattern, such as the number of PPV programs purchased, and a duration that a terminal has been tuned to a particular program service (corresponding to operational information of the STB). In column 6, line 62 - column 7, lines 5, Candalore describes that a service can be monitored, and the user can be given the option to upgrade to a premium program service (corresponding to a new product or function). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Candalore to monitor operational information of an STB in order to gauge user interest in a particular product or function to the system of Prokopenko in view of Zomaya, which discloses upgrading user equipment based on user preferences. The combination of these two known art elements would have led one of ordinary skill to realize that the system could be further customized based on operational information (as taught by Candalore) as well as preference data.



With regard to Claim 12, Prokopenko further discloses the ability to store the value of a parameter set by the user and a time that the parameter is set by the user (In column 9, lines 48-54; Prokopenko describes the user has requested a particular day, which would correspond to a parameter, and a particular time that corresponds to that parameter)

With regard to claim 14, Prokopenko further discloses wherein said signal processing means is removable from said information processing apparatus (column 25, lines 44-48, Prokopenko discloses the application program, which would process the incoming signal, can be resident on a removable medium).

Claim 15 is the method of claim 11, and is analyzed and rejected accordingly.

Claim 16 is the computer instructions to drive the system of claim 11, and is analyzed and rejected accordingly.

Claim 17 is rejected as applied to claim 16.

3. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prokopenko in view of Zomaya, in view of Candelore in further view of Schlack et al, US Patent # 7260823, hereinafter Schlack.

With regard to claim 4, Prokopenko in view of Zomaya in view of Candelore discloses:

A center processing apparatus according to claim 3. Schlack further discloses wherein said selecting means includes determining means which calculates a variation in the user information and which determines whether or not the

variation is greater than a predetermined threshold, and said selecting means classifies the users into predetermined groups based on the result of determination by said determining means. Specifically, Schlack discloses calculating variances in viewer behavior and placing viewers in predefined groups based on meeting specific behavioral thresholds (Column 26, line 64 - column 27, line; Schlack discusses the determining of a particular user/group by the use of thresholds. For example, based on how slowly or fast a particular person changes channels is a factor in determining what particular user is operating the TV). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine this feature as taught by Schlack in order to recommend a programming schedule/viewer procedure based on the viewing habits of a particular viewer or viewer group. The advantage of such a system would have been to provide more targeted content and therefore more effective advertising.

With regard to claim 5, Prokopenko further discloses recording the optimal procedures derived based on the specific group (Prokopenko discloses the feature of storing the results of a pattern list based on user actions that would define a group; column 11, lines 9-16; Prokopenko specifically discloses storing the results of a generalization algorithm).

With regard to claim 6, Prokopenko further discloses a basic part determining means which, based on the result of determination by said determining means, acquires one procedure from said procedure recording

means, and which, based on the acquired procedure, determines a basic part of a function to be provided to the user (column 9, lines 59-65; Prokopenko describes determining a recommendation list to be provided to the user); and unique part determining means which, based on the user information analyzed by said analyzing means, determines a part unique to the user in the function (column 10, lines 57-66; Prokopenko describes associating particular viewing habits with particular shows).

With regard to claim 7, Prokopenko in view of Zomaya fails to disclose updating of the threshold based on user information. Schlack further teaches the updating of the threshold based on user information (column 30, lines 34-41; Schlack describes a rolling window of time in which, based on user interactions, raises or lowers the threshold). It would have been obvious to one of ordinary skill in the art at the time of invention to add this feature, as taught by Schlack. The advantage of doing this would have been to provide a more updated user profile to the information processing system to generate a more updated list of upgrades to the user.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prokopenko in view of Zomaya in view of Candelore in further view of Kondo, US Patent # 6381369, hereinafter Kondo.

With regard to claim 13, Prokopenko in view of Zomaya in view of Candelore discloses the information processing apparatus according to claim 11, however fails to disclose wherein said signal processing means performs an

image creating process by performing classification adaptive processing on an input information signal. Kondo, discloses this feature (Figure 7 and column 13, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine this feature as taught by Kondo to the system of Prokopenko in view of Zomaya in view of Candelore in order to decode signal streams with different resolutions. The advantage would have been the ability to view signals of different formats.

***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK D. FEATHERSTONE whose telephone number is (571)270-3750. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F US Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Mark Featherstone/ - Assistant Examiner

/James Sheleheda/  
Primary Examiner, Art Unit 2424